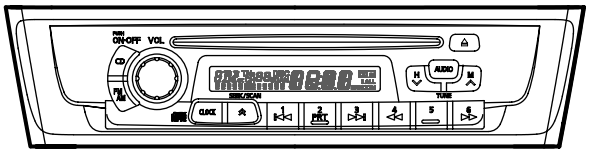
Clarion

Clarion Co., Ltd.
50 Kamitoda, Toda-shi, Saitama 335-8511 Japan
Service Dept.: 5-66 Azuma , Kitamoto-shi, Saitama 364-0007 Japan
Tel: +81-48-541-2335 / 2432 FAX: +81-48-541-2703

Published by Service Dept.
298-6147-00 Feb.2004
Printed in Japan

Service Manual



NISSAN Automobile Genuine
AM/FM Radio CD Stereo

Model PN-2165M-G
(Genuine No. 28185 4Z300)
(ID CY338 / Black Escutcheon)

Model PN-2165M-H
(Genuine No. 28185 4Z310)
(ID CY248 / Brown Escutcheon)

Model PN-2165M-I
(Genuine No. 28185 4Z320)
(ID CY358 / Gray Escutcheon)

Model PN-2165M-M
ROCKFORD FOSGAT
(Genuine No. 28185 4Z600)
(ID CY120 / Black Escutcheon)

ORIGINAL SERVICE MANUAL

This additional service manual is designed to be used together with original service manual.

Original model	Manual No.
PN-2165M-A,B,C	298-5779-00

DEFFARENCE FROM ORIGINAL MODEL

1.Without fix equalizer curcuit of the main PWB section.

SPECIFICATIONS

Radio section

Tuning system:	PLL Frequency synthesizer system	
Receive range:	AM	530kHz to 1,710kHz
	FM	87.9MHz to 107.9MHz
Intermediate frequency:		
	AM	450 +3/ -3kHz
	FM	10.7 +0.2/ -0.2MHz
Quieting sensitivity:	AM	Less than 32dBu(at 20dB S/N)
	FM	Less than 10dBu(at 30dB S/N)
Separation:	FM	More than 20dB(at 1kHz)
Auto tuning stop sensitivity:		
	AM	36 +6/ -6dBu
	FM	25 +6/ -6dBu

CD section

Disc:	12cm,8cm Disc
Frequency response:	17Hz to 20kHz(+3/ -3dB)
Separation:	More than 50dB(1kHz,0.5W)
S/N ratio:	More than 74dB(1kHz,5W)
Distortion:	Less than 0.4%(1kHz,0.5W)

General

Output power:	30W x4
Power supply voltage:	DC14.4V(10.8V to 15.6V)
	Negative ground
Back-up consumption:	Less than 3mA
Dimensions(mm):	264.2(W) x63.6(H) x171.9(D)
Weight:	1.7kg

* Specifications and design are subject to change without notice for further improvement.

COMPONENT

PN-2165M-G / M-H / M-I / M-M

Main unit ---------- 1

NOTE

We cannot supply PWB with component parts in principle. When a circuit on PWB has failure , please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.
6. Cautions in handling flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
8. Cautions in checking that the optical pickup lights up.
   The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
9. Cautions in handling the optical pickup
   The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

9-1. Laser diode
   The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

9-2. Actuator
   The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

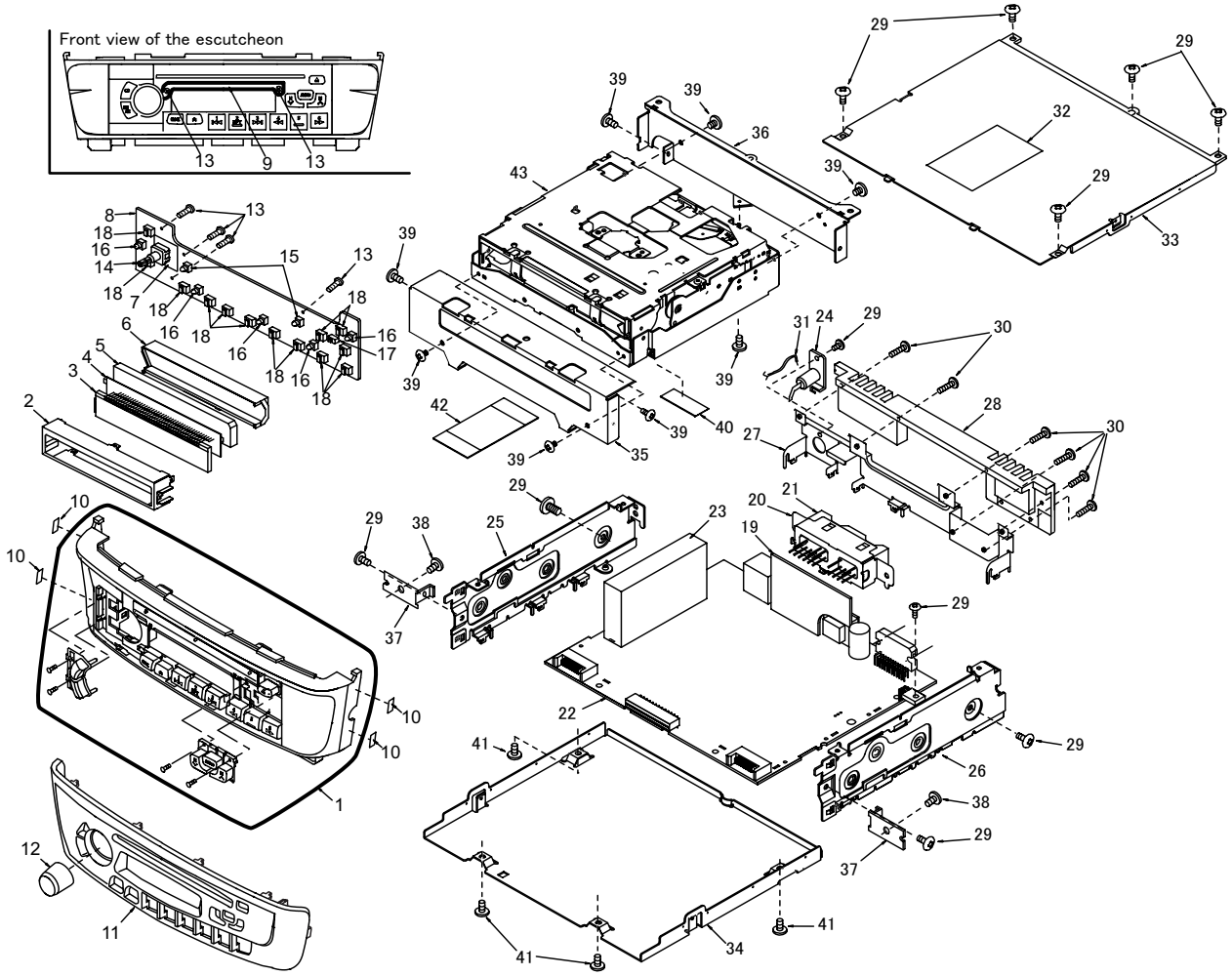
9-3. Cleaning the lens
   Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

FEATURES

		PN-2165M-G	PN-2165M-H	PN-2165M-I	PN-2165M-M
NISSAN PART NO.		28185 4Z300	28185 4Z310	28185 4Z320	28185 4Z600
ID NO.		CY338	CY348	CY358	CY120
RADIO	***BAND***	AM/FM	AM/FM	AM/FM	AM/FM
	AUTO TUNING	SEEK/SCAN	SEEK/SCAN	SEEK/SCAN	SEEK/SCAN
	FM DIVERSITY	—	—	—	—
	AM N.C.	—	—	—	—
	GLASS ANT.	—	—	—	—
INTERFACE	***AUX CONNECTION***	◎	◎	◎	◎
	REMOTE CONTROL	—	—	—	—
	PHONE CONNECTION	—	—	—	—
	CD A/C CONNECTION	—	—	—	—
OTHERS	***ESCUTCHEON***	BLACK	BROWN	GRAY	BLACK
	ILLUMINATION COLOR	WHITE	WHITE	WHITE	WHITE
	POWER AMP	30W×4	30W×4	30W×4	30W×4
	DIMMER	◎	◎	◎	◎
	CLOCK	◎	◎	◎	◎
	FIX EQ	—	—	—	—
	AMP ON SIG	◎	◎	◎	◎

EXPLODED VIEW/PARTS LIST

Main section



Note)Some parts depend on each model.The model name is specified in the descripion .
(CY338;PN2165MG, CY348;PN2165MH, CY358;PN2165MI, CY120;PN2165MM)

NO.	PART NO.	DESCRIPTION	Q'TY
*1	940-7894-63 940-7894-64 940-7894-65 940-7894-63	ESCUTCHEON ASSY(CY338) ESCUTCHEON ASSY(CY348) ESCUTCHEON ASSY(CY358) ESCUTCHEON ASSY(CY120)	1
2	331-2448-01	LCD HOLDER	1
3	379-1161-20	INDICATOR	1
4	335-5779-00	COLOR FILTER	1
5	335-5777-00	LCD ILLUMI	1
6	335-5778-00	ILLUMI HOLDER	1
7	347-6178-00	COLOR FILTER	1
8	039-1502-01	SWITCH PWB (WITHOUT COMPONENT)	1
9	335-6197-00	SPACER	1
10	347-2510-00	CUSHION TAPE	4

NO.	PART NO.	DESCRIPTION	Q'TY
*11	373-0957-30 373-0957-40 373-0957-50 373-0957-21	DIAL COVER(CY338) DIAL COVER(CY348) DIAL COVER(CY358) DIAL COVER(CY120)	1
12	380-5433-00	KNOB	1
13	716-0872-00	PAD SCREW(M1.7 x5)	6
14	016-0010-15	VARIABLE RESISTOR	1
15	017-0447-09	PILOT LAMP(8V105mA)	2
16	017-0433-08	PILOT LAMP(14V40m)	5
17	013-6302-50	SWITCH	1
18	013-6300-51	SWITCH	13
19	039-1463-00	SUB PWB (WITHOUT COMPONENT)	1
20	331-2449-01	CONNECTOR HOLDER	1
21	074-1185-10	OUTLET SOCKET(NS10/6MW)	1
22	039-1501-00	MAIN PWB (WITHOUT COMPONENT)	1
23	880-1916B	AM/FM TUNER PACK	1
24	092-0702-00	ANT RECEPT	1
25	305-0272-01	SIDE PLATE(L)	1
26	305-0273-01	SIDE PLATE(R)	1

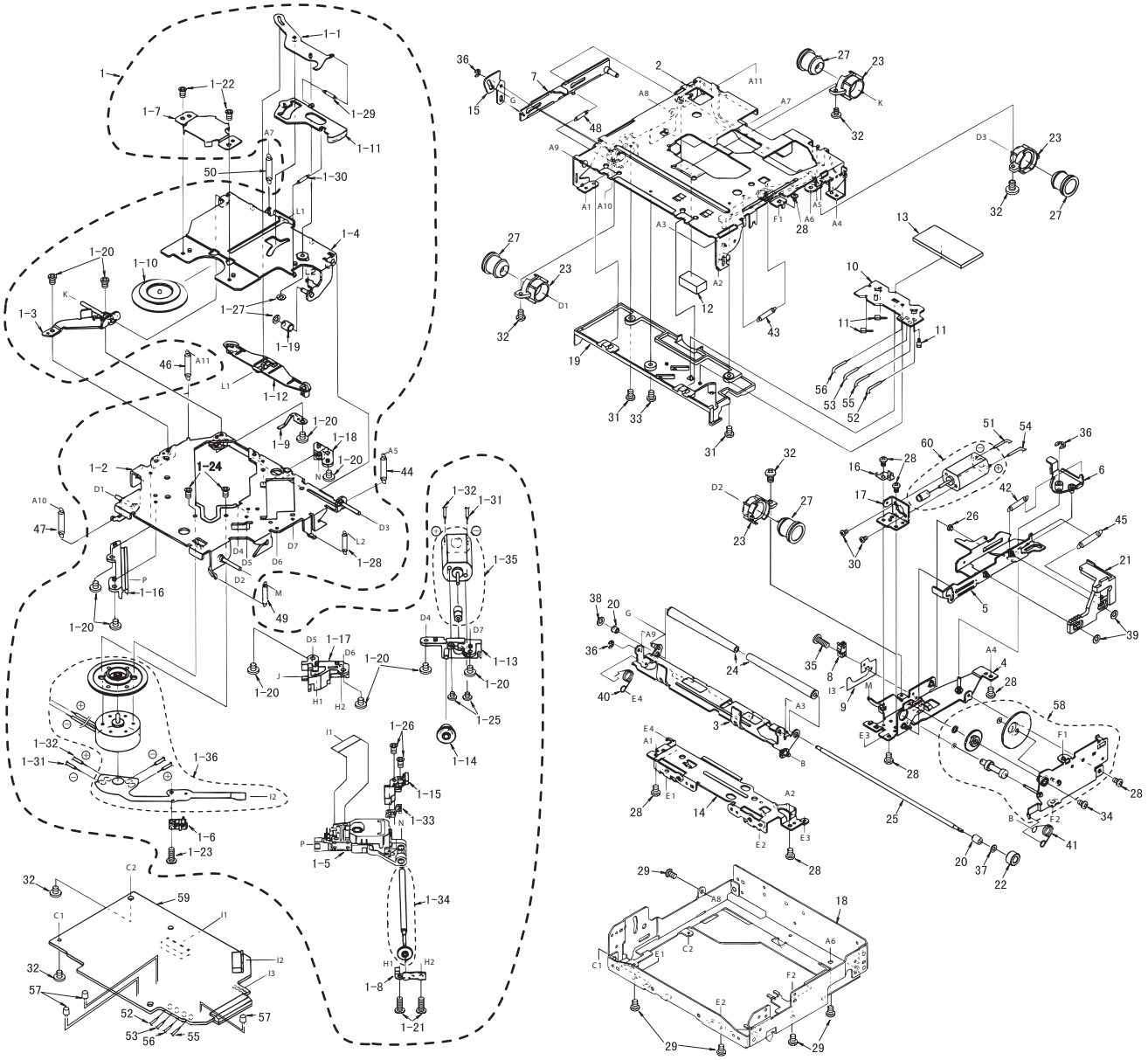
NO.	PART NO.	DESCRIPTION	Q'TY
27	307-0613-01	REAR COVER	1
28	313-1739-00	HEAT SINK	1
29	714-2605-81	MACHINE SCREW(M2.6 x5)	11
30	714-2612-81	MACHINE SCREW(M2.6 x12)	6
31	800-0205-00	WIRE	1
*32	286-9269-06 286-9269-07 286-9269-08 286-9269-09	SETPLATE(CY338) SETPLATE(CY348) SETPLATE(CY358) SETPLATE(CY120)	1
33	303-0471-01	UPPER COVER	1
34	304-0459-01	LOWER COVER	1
35	331-2450-00	MECH BRACKET(FRONT)	1
36	331-2451-00	MECH BRACKET(REAR)	1
37	331-2452-00	ESCUTCHEON BRACKET	2
38	702-3008-81	TAP SCREW	2
39	714-2303-81	MACHINE SCREW(M2.3 x3)	8
40	347-2022-01	PAPER PART	1
41	716-1494-00	IT SCREW(M2.6 x6)	4
42	816-2490-00	FLAT WIRE	1
43	929-0069-88	CD MECHANISM	1

* Mark parts are differed original service manual.

CD mechanism section : 929-0069-88

NO.	PART NO.	DESCRIPTION	Q'TY
1	HBS-463-100	DRIVE UNIT	1
1-1	966-0314-40	STOP LINK-ASSY	1
1-2	966-0447-40	DR-PLATE-ASSY	1
1-3	966-0448-40	SIDE PLATE-ASSY	1
1-4	966-0449-40	CLAMP-LINK-ASSY	1
*1-5	969-0050-52 969-0050-04	PICK UP UNIT	1
1-6	013-7100-00	LIMIT SWITCH	1
*1-7	620-0198-40	CLAMPER PLATE	1
*1-8	620-0491-40	SPRING PLATE	1
1-9	620-0690-01	RATTLE PLATE	1
1-10	621-0205-02	CLAMPER RING	1
*1-11	621-0251-50	LOCK LINK	1
*1-12	621-0252-50	DISC STOPPER	1
*1-13	621-0253-50	MOTOR HOLDER	1
1-14	621-0255-02	SECOUND GEAR	1
*1-15	621-0375-50	SH-BASE	1
1-16	621-0357-03	PICK UP GUIDE	1
*1-17	621-0358-50	LS-HOLDER-F	1
*1-18	621-0359-50	LS-HOLDER-R	1
1-19	622-1073-02	CLAMPER ROLLER	1
1-20	714-2003-81	MACHINE SCREW(M2X3)	10
1-21	716-0675-00	SCREW(M2X5.5)	2
1-22	716-1468-00	SCREW(M2X2.5)	2
1-23	716-1555-00	WAVE SCREW(M2X5)	1
1-24	716-1733-00	SCREW(M1.7X2.3)	2
1-25	732-2004-11	SEMS SCREW	2
1-26	739-1735-17	PRECISION SCREW	2
1-27	746-0761-00	WASHER	2
1-28	750-3097-03	CLAMPER SPRING	1
1-29	750-3098-00	L-LINK SPRING	1

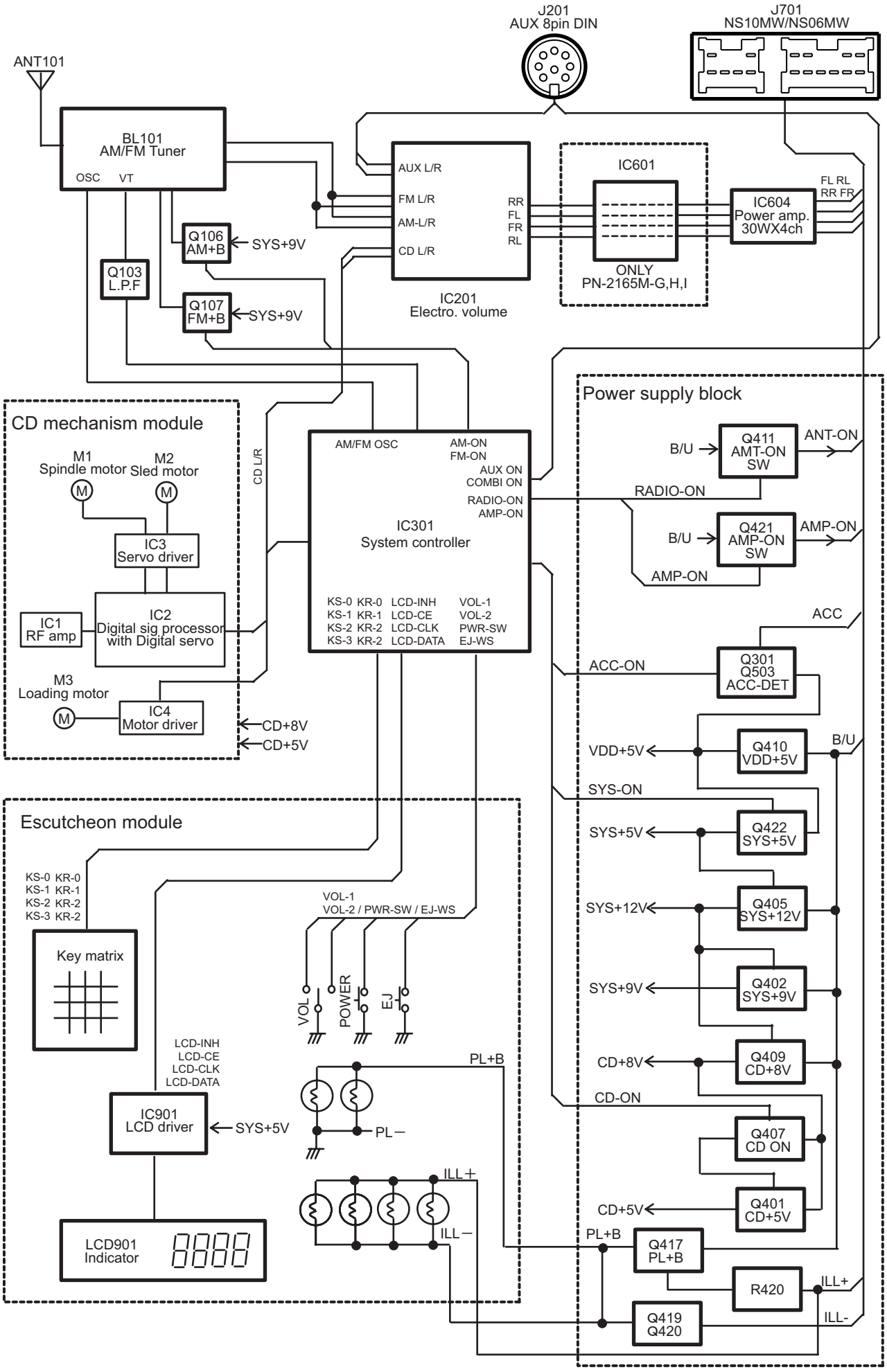
NO.	PART NO.	DESCRIPTION	Q'TY
1-30	750-3099-00	ES-SPRING	1
1-31	816-2372-00	LEAD(BLUE)	1
1-32	816-2373-00	LEAD(WHITE)	1
1-33	966-0454-00	SH-RACK-ASSY	1
1-34	HBS-432-100	LS-GEAR-ASSY	1
1-35	SMA-146-100	SLED MOTOR-ASSY	1
1-36	SMA-151-100	SPINDLE MOTOR-ASSY	1
*2	966-0308-41	CHASSIS-ASSY	1
*3	966-0309-23	L-DISC-G-ASSY	1
*4	966-0310-41	SFT-P-CH-ASSY	1
5	966-0312-40	SHIFT-P-ASSY	1
6	966-0358-40	DRIVE-L-PL-ASSY	1
7	966-0359-40	SIDE-L-PL-ASSY	1
8	013-3879-01	CHUCKING SWITCH	1
9	039-0586-01	CHUCKING SWITCH PWB (WITHOUT COMPONENT)	1
10	039-0588-01	SENSOR PWB (WITHOUT COMPONENT)	1
11	060-0252-01	PHOTO-TR (PT4850F)	3
12	345-7513-01	CLAMPER SHEET	1
13	345-7514-00	S-PWB-SHEET	1
*14	620-0485-40	FRONT PLATE	1
*15	620-0488-40	S-L-LINK PLATE	1
16	620-0489-02	MOTOR PLATE	1
17	620-0492-01	MOTOR BRACKET	1
*18	620-0773-40	MECH-BRACKET	1
*19	621-0402-50	U-DISC GUIDE-F	1
*20	621-0243-50	ROLLER SLEEVE	2
*21	621-0248-51	RACK GEAR	1
*22	621-0249-50	ROLLER GEAR	1
*23	621-0250-50	DAMPER HOLDER	4



NO.	PART NO.	DESCRIPTION	Q'TY
24	621-0258-03	LOADING ROLLER	2
25	622-1072-05	ROLLER SHAFT	1
26	622-1219-01	SHIFT ROLLER	1
27	629-0058-00	DAMPER-VA	4
28	714-2003-81	MACHINE SCREW(M2X3)	8
29	714-2603-81	MACHINE SCREW(M2.6X3)	5
30	716-1468-00	SCREW(M2X2.5)	2
31	716-1507-00	SCREW(M2X3)	2
32	716-1670-00	SCREW(M2X4)	6
33	716-1677-00	SCREW(M2X5)	1
34	716-1704-00	SCREW(M2X7)	1
35	716-1742-00	SCREW(M2X5)	1
36	743-1500-10	E-RING	3
37	746-0712-03	WASHER	1
38	746-0762-00	WASHER	1
39	746-0877-02	WASHER	2
40	750-3090-02	RO-SPRING-L	1
41	750-3091-03	RO-SPRING-R	1
42	750-3092-03	SHIFT SPRING	1

NO.	PART NO.	DESCRIPTION	Q'TY
43	750-3094-00	S-ARM SPRING	1
44	750-3096-01	DR-SPRING-R	1
45	750-3098-00	L-LINK SPRING	1
46	750-3164-00	DR-SPRING-LR	1
47	750-3188-00	DR-SPRING-F-B	1
48	750-3189-00	SIDE-L-SPRING	1
49	750-3201-00	DR-SPRING-F-R	1
50	750-3202-00	CENTER SPRING-B	1
51	800-4904-60	VINYL-COAT-WIRE(BLK)	1
52	800-4910-60	VINYL-COAT-WIRE(BLK)	1
53	801-4910-60	VINYL-COAT-WIRE(BRN)	1
54	802-4904-60	VINYL-COAT-WIRE(RED)	1
55	802-4910-60	VINYL-COAT-WIRE(RED)	1
56	804-4910-60	VINYL-COAT-WIRE(YEL)	1
57	001-0563-00	DIODE	3
58	HBS-430-100	GEAR-PLATE-ASSY	1
*59	039-1088-05	MECHANISM PWB (WITHOUT COMPONENT)	1
60	SMA-147-100	LOADING MOTOR-ASSY	1

BLOCK DIAGRAM



ELECTRICAL PARTS LIST

Note) Several different parts of the same reference number are alternative parts.
One of those parts is used in the set.
Note)Some parts depend on each model.The model name is specified in the descripion .
(CY338;PN2165MG/MH/MI, CY120;PN2165MM)

Main PWB section(B1)

REF No.	PART No.	DESCRIPTION
ANT101	092-0702-00	ANT RECEPT
BL101	880-1916B	AM/FM TUNER
C108	176-1501-50	15pF CH
C109	043-0277-51	0.022uF
C110	176-1021-50	1000pF CH
C111	183-1073-29	10V100uF
C112	042-0458-90	50V1uF
C113	183-1073-29	10V100uF
C115	042-0562-86	50V1uF
C116	178-1232-78	0.012uF
C140	172-2231-15	0.022uF
C141	183-4763-39	16V47uF
C143	117-0000-05	1/8W 0 ohm JW
C144	176-1007-50	10pF CH
C145	178-3932-78	0.039uF
C146	178-3932-78	0.039uF
C153	183-1073-29	10V100uF
C154	178-1042-78	0.1uF
C156	176-1007-50	10pF CH
C157	178-2232-78	0.022uF
C158	176-1011-50	100pF CH
C201	042-0562-67	16V10uF
C202	183-1043-69	50V0.1uF
C203	183-1043-69	50V0.1uF
C204	042-0562-67	16V10uF
C205	042-0562-67	16V10uF
C206	042-0562-67	16V10uF
C207	178-1042-78	0.1uF
C208	183-3353-69	50V3.3uF
C209	183-3353-69	50V3.3uF
C210	042-0505-84	10V33uF
C211	178-1042-78	0.1uF
C212	042-0562-86	50V1uF
C213	042-0562-86	50V1uF
C214	042-0562-67	16V10uF
C215	042-0562-67	16V10uF
C216	042-0562-67	16V10uF
C217	042-0562-67	16V10uF
C218	042-0562-86	50V1uF
C219	042-0562-86	50V1uF
C220	178-1242-78	0.12uF
C221	178-1242-78	0.12uF
C222	178-1532-78	0.015uF
C223	178-1532-78	0.015uF
C224	178-3312-78	330pF
C225	178-3312-78	330pF
C226	042-0562-67	16V10uF
C227	042-0562-67	16V10uF
C228	178-3332-78	0.033uF
C229	042-0505-84	10V33uF
C301	176-1011-50	100pF CH
C302	176-1011-50	100pF CH
C303	176-1011-50	100pF CH
C304	176-1011-50	100pF CH
C306	176-2201-50	22pF CH
C307	183-1053-67	50V1uF
C308	178-3922-78	3900pF
C309	178-3922-78	3900pF
C310	178-4742-78	0.47uF
C401	183-4763-17	6.3V47uF
C402	178-1042-78	0.1uF
C403	183-1063-39	16V10uF
C404	042-0417-90	10V220uF
C405	183-1073-29	10V100uF
C406	183-1063-39	16V10uF
C407	183-1063-39	16V10uF
C408	183-4763-19	6.3V47uF
C409	178-1042-78	0.1uF
C410	184-4773-22	10V470uF
C411	183-4756-58	35V4.7uF NP
C413	178-1042-78	0.1uF
C414	178-1042-78	0.1uF
C416	183-4763-17	6.3V47uF
C417	178-1042-78	0.1uF
C418	178-1042-78	0.1uF
C420	042-0505-81	10V22uF
C421	178-1042-78	0.1uF
C422	178-1042-78	0.1uF
C423	183-4763-39	16V47uF
C424	042-0505-81	10V22uF
C503	042-0562-70	16V47uF
C504	183-1053-69	50V1uF
C505	042-0465-00	16V3300uF
C506	172-1041-15	0.1uF
C507	183-1063-39	16V10uF
C508	176-1011-50	100pF CH
C510	176-4711-50	470pF CH
C601	042-0562-67	16V10uF
C602	042-0562-67	16V10uF
C603	042-0562-67	16V10uF
C604	042-0562-67	16V10uF
C609	176-2201-50	22pF CH(CY338)
C610	176-2201-50	22pF CH(CY338)
C611	176-2201-50	22pF CH(CY338)
C612	176-2201-50	22pF CH(CY338)
C629	178-1032-78	0.01uF
C630	178-2232-78	0.022uF
C631	178-4732-78	0.047uF(CY338)
C631	117-0000-05	1/8W 0 ohm JW(CY120)
C632	178-4732-78	0.047uF(CY338)
C632	117-0000-05	1/8W 0 ohm JW(CY120)
C633	117-0000-05	1/8W 0 ohm JW
C634	117-0000-05	1/8W 0 ohm JW
C638	183-2253-67	50V2.2uF
C639	178-1242-78	0.12uF
C640	178-1242-78	0.12uF
C641	178-3332-78	0.033uF(CY338)
C641	178-1242-78	0.12uF(CY120)
C644	178-3332-78	0.033uF(CY338)
C644	178-1242-78	0.12uF(CY120)
C646	172-1041-15	0.1uF
C647	183-1053-69	50V1uF
C648	178-2222-55	2200pF
C649	178-2222-55	2200pF
C650	178-2222-55	2200pF
C651	178-2222-55	2200pF
C652	178-2222-55	2200pF
C653	178-2222-55	2200pF
C654	178-2222-55	2200pF
C655	178-2222-55	2200pF
C656	178-2222-55	2200pF
C657	178-2222-55	2200pF
C662	042-0417-90	10V220uF
C663	042-0562-70	16V47uF
C686	178-1032-78	0.01uF
C687	176-2201-50	22pF CH(CY338)
C687	117-0000-05	1/8W 0 ohm JW(CY120)
C688	176-2201-50	22pF CH(CY338)
C688	117-0000-05	1/8W 0 ohm JW(CY120)
C689	176-2201-50	22pF CH(CY338)
C689	117-0000-05	1/8W 0 ohm JW(CY120)
C690	176-2201-50	22pF CH(CY338)
C690	117-0000-05	1/8W 0 ohm JW(CY120)
D301	001-0294-00	1SS133
D301	001-0330-90	1SS119
D401	001-0504-31	HZS6 A2L
D402	001-0377-48	MA4091H
D402	001-0376-49	MTZJ10A
D402	001-0400-48	HZS9.1JB3
D403	001-0294-00	1SS133
D403	001-0330-90	1SS119
D404	001-0504-45	HZS9B1L
D405	001-0504-31	HZS6 A2L
D406	001-0377-39	MA4068H
D406	001-0400-39	HZS6.8JB3
D406	001-0376-40	MTZJ7.5A
D407	001-0400-43	HZS8.2JB1
D407	001-0376-44	MTZJ8.2B
D407	001-0377-43	MA4082L
D410	001-0294-00	1SS133
D410	001-0330-90	1SS119
D503	001-0466-90	S5688B
D505	001-0466-90	S5688B
D506	001-0466-90	S5688B
D507	001-0377-34	MA4062L
D507	001-0400-34	HZS6C1
D507	001-0346-34	MTZJ6.2A
D508	001-0627-90	U1BC44
D509	001-0627-90	U1BC44
D510	001-0627-90	U1BC44
D511	001-0627-90	U1BC44
IC201	051-5012-00	LC75386
IC301	052-1160-01	LC72366-9946
IC601	051-3019-90	NJM2060V(CY338)
IC604	051-2023-01	TA8260AH
IC606	051-3020-90	NJM4565V
J201	074-0850-08	8P
J301	074-1186-26	26P
L102	010-2003-04	COIL
L401	010-2230-64	2.2uH
L501	009-0670-01	CHOKE
P501	076-0324-16	16P
P502	076-0540-12	12P
P503	076-0540-10	10P
Q103	198-0669-00	2SK669
Q106	190-1150-00	2SA1150
Q107	190-1150-00	2SA1150
Q109	125-2005-91	UN2211
Q201	125-2005-91	UN2211
Q203	125-9003-92	IMD3
Q301	125-0001-91	UN2111
Q401	193-2118-00	2SD2118
Q402	193-2118-00	2SD2118
Q405	190-1428-00	2SA1428
Q406	125-2005-91	UN2211
Q407	190-1048-00	2SA1048
Q409	102-3420-00	2SC3420
Q410	193-1858-00	2SD1858
Q411	125-9002-02	RN4602
Q411	125-9003-92	IMD3
Q412	193-0601-00	2SD601A
Q414	125-2005-91	UN2211
Q417	193-2118-00	2SD2118
Q419	193-1306-00	2SD1306
Q420	193-0601-00	2SD601A
Q421	125-9003-92	IMD3
Q422	125-0001-91	UN2111
Q423	125-2005-91	UN2211

REF No.	PART No.	DESCRIPTION
Q503	193-0601-00	2SD601A
R2	117-0000-00	1/8W 0 ohm
R110	117-2221-15	1/8W 2.2k ohm
R111	117-2221-15	1/8W 2.2k ohm
R112	117-3321-15	1/8W 3.3k ohm
R113	117-4721-15	1/8W 4.7k ohm
R115	111-2221-98	1/4W 2.2k ohm
R116	117-1021-15	1/8W 1k ohm
R118	111-1031-98	1/4W 10k ohm
R120	111-1031-98	1/4W 10k ohm
R121	111-2221-98	1/4W 2.2k ohm
R132	117-2221-15	1/8W 2.2k ohm
R133	111-5691-98	1/4W 5.6 ohm
R134	117-4741-15	1/8W 470k ohm
R135	111-1001-98	1/4W 10 ohm
R136	111-8291-98	1/4W 8.2 ohm
R138	117-1011-15	1/8W 100 ohm
R139	117-8201-15	1/8W 82 ohm
R201	117-3011-15	1/8W 300 ohm
R202	117-4731-15	1/8W 47k ohm
R203	117-3931-15	1/8W 39k ohm
R204	117-4731-15	1/8W 47k ohm
R205	111-8211-98	1/4W 820 ohm
R206	117-3011-15	1/8W 300 ohm
R207	117-0000-05	1/8W 0 ohm JW
R208	117-0000-05	1/8W 0 ohm JW
R209	117-4721-15	1/8W 4.7k ohm
R210	117-4721-15	1/8W 4.7k ohm
R213	117-4741-15	1/8W 470k ohm
R215	111-8211-98	1/4W 820 ohm
R216	032-0106-63	1/8W 47k ohm D
R217	032-0106-63	1/8W 47k ohm D
R218	032-0106-63	1/8W 47k ohm D
R219	032-0106-63	1/8W 47k ohm D
R220	117-4731-15	1/8W 47k ohm
R221	117-3931-15	1/8W 39k ohm
R301	117-2231-15	1/8W 22k ohm
R302	117-4731-15	1/8W 47k ohm
R303	117-1031-15	1/8W 10k ohm
R304	117-1031-15	1/8W 10k ohm
R305	117-4731-15	1/8W 47k ohm
R306	117-1041-15	1/8W 100k ohm
R307	117-1041-15	1/8W 100k ohm
R308	117-1041-15	1/8W 100k ohm
R309	117-4731-15	1/8W 47k ohm
R310	117-1031-15	1/8W 10k ohm
R311	117-1031-15	1/8W 10k ohm
R312	117-4731-15	1/8W 47k ohm
R313	117-4731-15	1/8W 47k ohm
R315	117-4731-15	1/8W 47k ohm
R316	117-6841-15	1/8W 680k ohm
R317	117-1021-15	1/8W 1k ohm
R318	117-1021-15	1/8W 1k ohm
R319	117-1031-15	1/8W 10k ohm
R320	117-1031-15	1/8W 10k ohm
R322	117-1031-15	1/8W 10k ohm
R323	119-1021-15	1/10W 1k ohm
R324	119-1021-15	1/10W 1k ohm
R325	119-1021-15	1/10W 1k ohm
R326	119-1021-15	1/10W 1k ohm

REF No.	PART No.	DESCRIPTION
R327	119-1021-15	1/10W 1k ohm
R328	119-1021-15	1/10W 1k ohm
R405	111-2211-98	1/4W 220 ohm
R406	111-4711-98	1/4W 470 ohm
R407	117-1041-15	1/8W 100k ohm
R408	111-1021-98	1/4W 1k ohm
R409	117-3321-15	1/8W 3.3k ohm
R410	117-2231-15	1/8W 22k ohm
R411	117-1031-15	1/8W 10k ohm
R414	111-3911-98	1/4W 390 ohm
R415	117-1041-15	1/8W 100k ohm
R416	117-6821-15	1/8W 6.8k ohm
R417	117-2231-15	1/8W 22k ohm
R418	111-2021-98	1/4W 2k ohmJ
R419	117-1031-15	1/8W 10k ohm
R420	111-4731-98	1/4W 47k ohm
R427	111-8211-98	1/4W 820 ohm
R428	111-8211-98	1/4W 820 ohm
R429	111-8211-98	1/4W 820 ohm
R430	117-5611-15	1/8W 560 ohm
R432	111-1831-98	1/4W 18k ohm
R433	111-4721-98	1/4W 4.7k ohm
R434	111-2021-98	1/4W 2k ohmJ
R435	111-8211-98	1/4W 820 ohm
R438	117-4741-15	1/8W 470k ohm
R439	111-2291-98	1/4W 2.2 ohm
R502	117-4731-15	1/8W 47k ohm
R505	117-8221-15	1/8W 8.2k ohm
R506	117-4731-15	1/8W 47k ohm
R507	117-1031-15	1/8W 10k ohm
R508	111-1531-98	1/4W 15k ohm
R509	114-2291-11	1W 2.2 ohm
R510	117-5611-15	1/8W 560 ohm
R511	117-1021-15	1/8W 1k ohm
R601	117-1031-15	1/8W 10k ohm (CY338)
R601	117-0000-05	1/8W 0 ohm JW(CY120)
R602	117-1031-15	1/8W 10k ohm (CY338)
R602	117-0000-05	1/8W 0 ohm JW(CY120)
R603	117-1031-15	1/8W 10k ohm (CY338)
R603	117-0000-05	1/8W 0 ohm JW(CY120)
R604	117-1031-15	1/8W 10k ohm (CY338)
R604	117-0000-05	1/8W 0 ohm JW(CY120)
R609	117-1031-15	1/8W 10k ohm (CY338)
R609	117-0000-05	1/8W 0 ohm JW(CY120)
R610	117-1031-15	1/8W 10k ohm (CY338)
R610	117-0000-05	1/8W 0 ohm JW(CY120)
R611	117-4721-15	1/8W 4.7k ohm (CY338)

REF No.	PART No.	DESCRIPTION
R612	117-4721-15	1/8W 4.7k ohm (CY338)
R613	117-4721-15	1/8W 4.7k ohm (CY338)
R614	117-4721-15	1/8W 4.7k ohm (CY338)
R615	117-1031-15	1/8W 10k ohm (CY338)
R615	117-0000-05	1/8W 0 ohm JW(CY120)
R616	117-1031-15	1/8W 10k ohm (CY338)
R616	117-0000-05	1/8W 0 ohm JW(CY120)
R617	117-0000-05	1/8W 0 ohm JW
R618	117-0000-05	1/8W 0 ohm JW
R619	117-0000-05	1/8W 0 ohm JW
R620	117-0000-05	1/8W 0 ohm JW
R645	117-1831-15	1/8W 18k ohm (CY338)
R645	117-8231-15	1/8W 82k ohm (CY120)
R646	117-4721-15	1/8W 4.7k ohm
R647	117-1021-15	1/8W 1k ohm
R650	117-0000-05	1/8W 0 ohm JW
R651	117-0000-05	1/8W 0 ohm JW
R658	111-1031-98	1/4W 10k ohm
R659	111-1031-98	1/4W 10k ohm
R664	111-1031-98	1/4W 10k ohm
R667	111-1031-98	1/4W 10k ohm
R668	117-0000-05	1/8W 0 ohm JW
R669	117-0000-05	1/8W 0 ohm JW
R670	117-2221-15	1/8W 2.2k ohm
R682	117-1531-15	1/8W 15k ohm (CY338)
R683	117-1531-15	1/8W 15k ohm (CY338)
R684	117-1531-15	1/8W 15k ohm (CY338)
R685	117-1531-15	1/8W 15k ohm (CY338)
R686	117-1031-15	1/8W 10k ohm (CY338)
R686	117-2021-15	1/8W 2k ohm (CY120)
R687	117-1031-15	1/8W 10k ohm (CY338)
R687	117-2021-15	1/8W 2k ohm (CY120)
R688	117-1031-15	1/8W 10k ohm (CY338)
R688	117-2021-15	1/8W 2k ohm (CY120)
R689	117-1031-15	1/8W 10k ohm (CY338)
R689	117-2021-15	1/8W 2k ohm (CY120)
SUP101	060-0122-20	DSP-141N-S00B
TC301	004-1580-64	47pF
X301	061-1053-00	4.5MHz

Mechanism PWB section(B4)

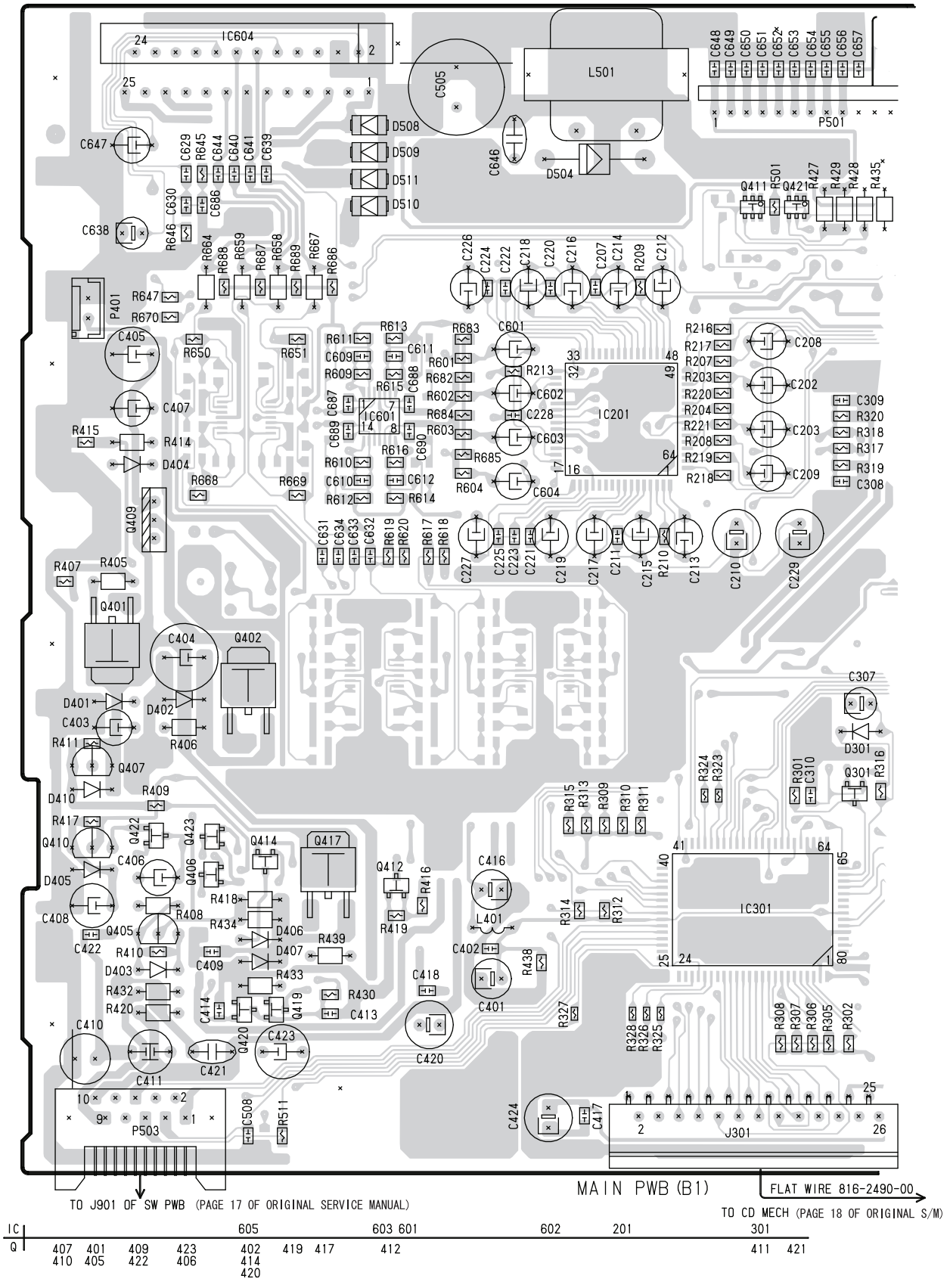
Difference the follwing parts in the parts list.(page 12)

REF No.	PART No.	DESCRIPTION
L3	010-3407-62	10 uH J

Other parts of PN-2165M-G,H,I,M are the same as PN-2165M-A,B,C.

PRINTED WIRING BOARD

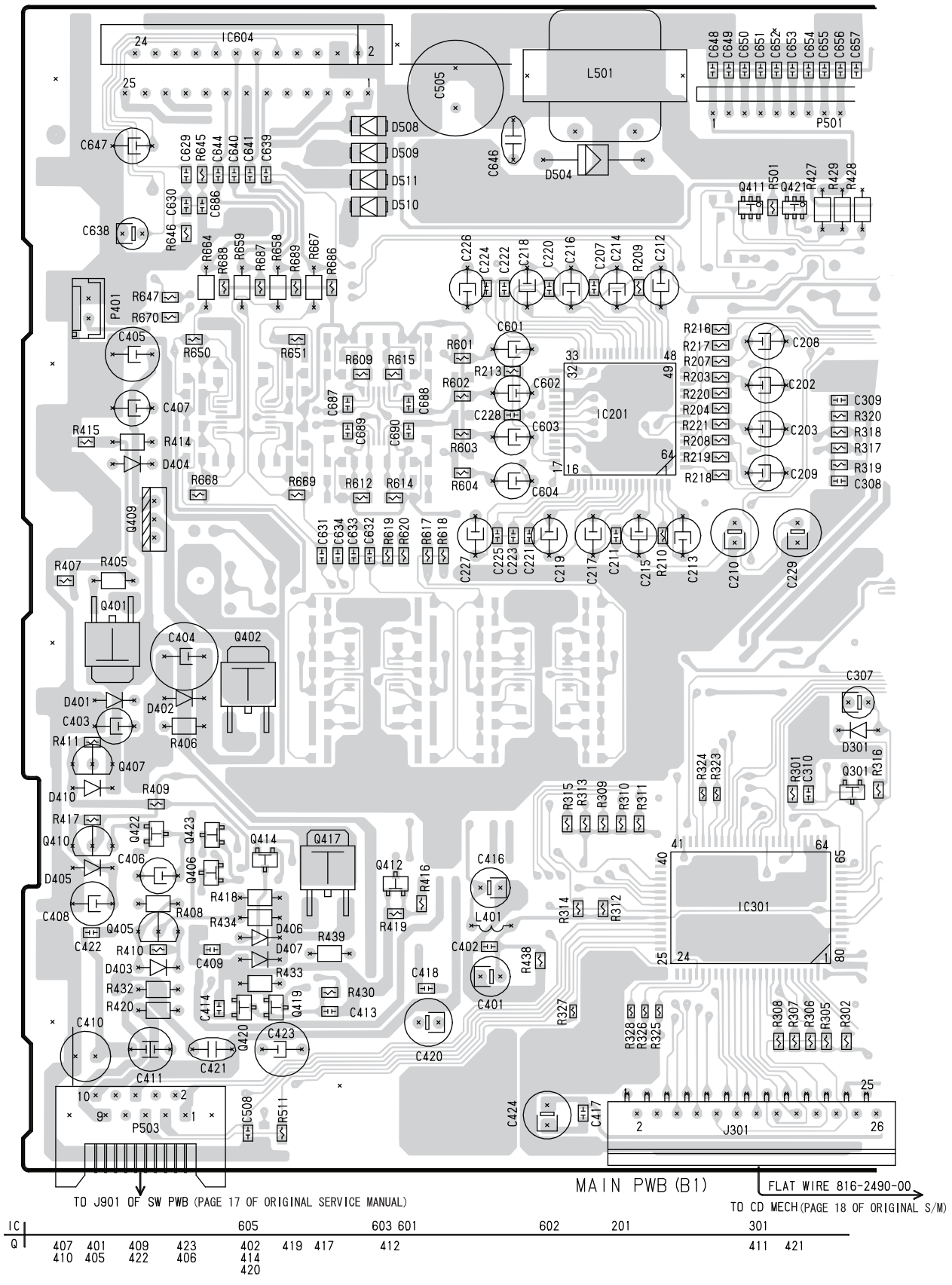
PN-2165M-G,H,I MAIN PWB section



PN-2165M-G,H
PN-2165M-I,M

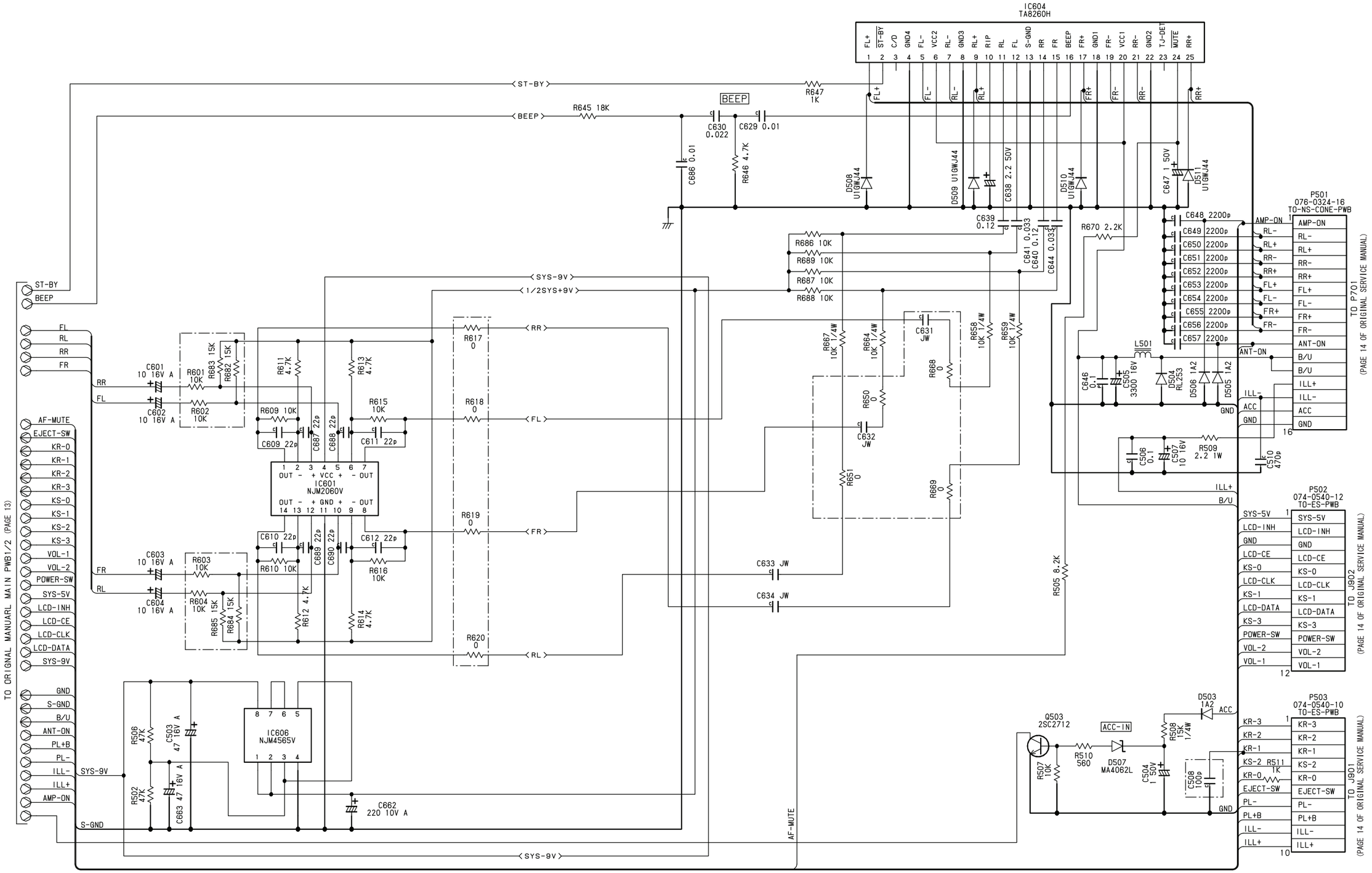
PRINTED WIRING BOARD

PN-2165M-M MAIN PWB section



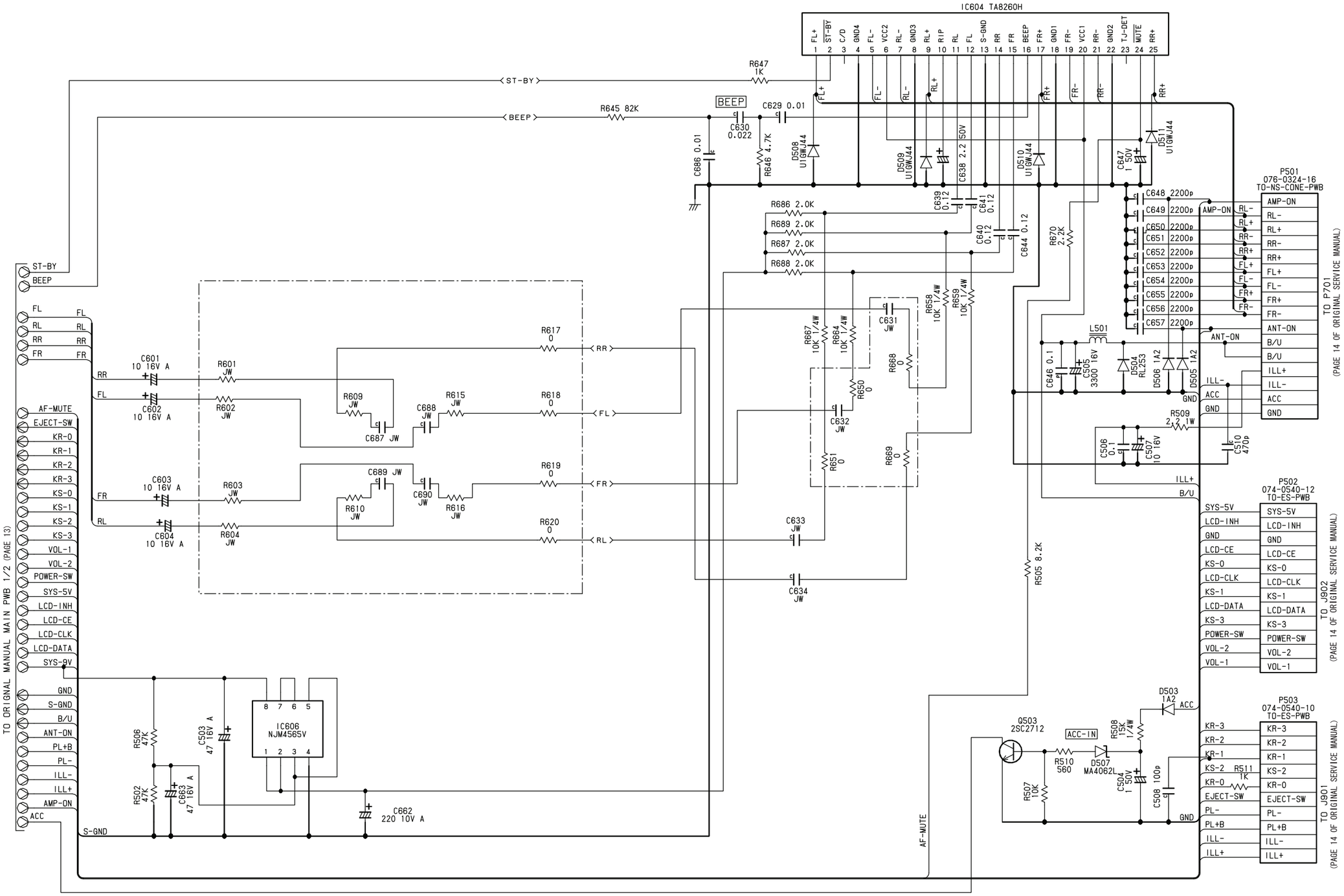
CIRCUIT DIAGRAM

PN-2165M-G,H,I MAIN PWB section



CIRCUIT DIAGRAM

PN-2165M-M MAIN PWB section



PN-2165M-G,H
PN-2165M-I,M